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A.D. 1874, 9th JULY. N° 2408.

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S P E C I F I C A T I O N

OF

SAMUEL HALLSWORTH  
AND  
RICHARD BAILES.

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CLARIFYING WASTE WATER, SEWAGE, &c.

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LONDON:

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## Clarifying Waste Water, Sewage, &c.

*(This Invention received Provisional Protection only.)*

PROVISIONAL SPECIFICATION left by Samuel Hallsworth and Richard Bailes at the Office of the Commissioners of Patents, with their Petition, on the 9th July 1874.

We, SAMUEL HALLSWORTH, of Armley, near Leeds, and RICHARD  
5 BAILES, of Woodhouse Carr, Leeds, both in the County of York, do hereby declare the nature of our said Invention for "IMPROVED MEANS OR METHOD OF TREATING AND CLARIFYING IMPURE OR WASTE WATER FROM FULLING MILLS, SCOURING MILLS, OR SCOURING PROCESSES, DYE HOUSES, SEWAGE, OR OTHER IMPURE WATERS," to be as follows:—

10 The modes of treating impure waters for clarifying purposes are as hereafter described.

We pass the impure or discoloured water into a tank or receiver of any required size. We then add in accordance with the amount of impurity or discolouration of the water a quantity of either bi-sulphate  
15 of iron manufactured from iron pyrites or a mixed solution of sulphuric acid and iron obtained from the beds of coal and iron pyrites in various parts of Great Britain and elsewhere, or sulphuric acid mixed with the "mother liquor" left after crystallization of copperas, or a mixture of



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*Hallsworth & Bailes' Improved Means of Clarifying Waste Water, &c.*

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sulphuric acid with other equivalent or suitable solution of iron, or of a solution of copperas and sulphuric acid.

After the ingredients have been placed in the water the whole must be stirred up or agitated by this means, the impurities become separated from the water and are precipitated to the bottom of the tank. The 5 clear water is then allowed to pass off, leaving the sediment or discolouring matter behind.

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